

Atty. Docket No. 2001-0021-06
USSN 10/650,578

REMARKS

In the Office Action, claims 1, 21, 23-24 and 26-31 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Also in the Office Action, claims 28-29 have been objected to because of an informality and claims 1, 8-11, 21, 23-24 and 26-31 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of various reference combinations.

In addition, claim 1 has been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,618,421.

In this response to the Office Action, claims 1, 21, 23, 24, 26-29 and 31 have been amended to overcome the Examiner's rejections under 35 U.S.C. § 112, second paragraph. Also in this response, Applicant respectfully contends that a *prima facie* case of obviousness has not been established by the Examiner. Lastly, a copy of a terminal disclaimer that was previously submitted to the USPTO on August 27, 2003 is attached herewith to overcome the Examiner's rejection for non-statutory double patenting.

Claims 1, 8-11 and 21-31 remain pending.

Rejections under 35 U.S.C. § 112

In the Office Action, claims 1, 21, 23-24 and 26-31 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner has indicated that claim 1 is vague because it is not clear if the limitation "said system" in the last line of the claim refers to the "gas discharge laser system" or the "pulse power system" that were previously recited in the claim. The Examiner has also indicated that in claims 1, 21, 23-24 and 26-31, the limitation "within 10nm to 20nm or less" is vague

Atty. Docket No. 2001-0021-06
USSN 10/650,578

because it is not clear which value is the upper limit or lower limit of the recited range. Also, the Examiner has correctly pointed out that the letter "c" is missing from the word "electrical" in claim 28.

In this response, claim 1 has been amended to replace the term "said system comprising a light source for another system" with the term "said laser system comprising a light source component for an application system". Also, claims 8-10 have been amended to accommodate the amendment to claim 1. In addition, claims 1, 21, 23, 24 and 26-31 have been amended to replace the term "within 10 to 20ns or less" with the term "less than 20ns". Lastly, claim 28 has been amended to correct the word "electrical".

With these claim amendments, Applicant respectfully contends that the rejections under 35 U.S.C. § 112, second paragraph have been overcome and should be withdrawn.

Atty. Docket No. 2001-0021-06
USSN 10/650,578

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 1, 8-11, 21, 23-24 and 26-31 have been rejected under 35 U.S.C. § 103(a) as being obvious over Fahlen et al. (4,245,1894) in view of Poustie (6,735,396). In addition, claims 11, 22 and 25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Fahlen in view of Poustie as applied above, and further in view of Sullivan et al. (5,666,385).

In response, Applicant respectfully contends that the Examiner has not established a *prima facie* case of obviousness with regard to any of the independent claims (i.e. claims 1, 21, 23, 24 and 26-31). In short, Applicant respectfully contends that neither of the cited references (i.e. Fahlen or Poustie) taken alone or in combination, teach or suggest a gas discharge laser system which controls jitter to an accuracy of less than 20ns, as currently claimed in all pending independent claims.

To begin, the Fahlen reference is cited merely as an example of a gas discharge laser and contains no mention of jitter control. On the other hand, the Poustie reference discloses a communications network having a device for quantifying the amount of jitter experienced by an optical data pulse. The Poustie reference then suggests that the jitter measurement may be used to provide a control signal to control a feed back loop operative on *one or more elements of the transmission system* to reduce the amount of timing jitter (see Poustie, col. 7, lines 46-49).

What is clearly missing from the cited references is *how* one skilled in the art would operate a gas discharged laser system to control jitter to an accuracy of less than 20ns. In fact, the Poustie reference is silent as to whether its "transmission system" can even be a gas discharge laser. At best, the relevance of Poustie's teaching with regard to the present inquiry is limited to an instruction that one could use a control signal indicative of jitter to operate on one or more transmission system elements to reduce jitter. As such, the Poustie

Atty. Docket No. 2001-0021-06
USSN 10/650,578

reference doesn't even tell us *which* elements to operate on, let alone *how* to operate on the elements.

Moreover, even to use the limited teaching described above would require that Poustie's device for quantifying the amount of jitter (which relies on a complicated process in which the pulse to be measured is input into an optical AND gate together with a chirped pulse that varies monotonically over the duration of the pulse) is actually operable on the type of pulse emitted by a gas discharge laser (a fact which has not been established on the record). Accordingly, it is unclear as to whether Poustie's device may even measure jitter for a gas discharged laser system at an accuracy level necessary to control jitter in a gas discharged laser system to less than 20ns.

The teaching that is lacking in Poustie is simply not provided by Fahlen. Indeed, there is no teaching in Fahlen that would enable one skilled in the art to operate a gas discharged laser system and control jitter to an accuracy of less than 20ns, with or without a jitter measurement, which may (or may not be) provided by the device disclosed in Poustie.

In view of the arguments presented above for distinguishing independent claims 1, 21, 23, 24 and 26-31 of the present invention from the cited references, Attorney for Applicant respectfully contends that independent claims 1, 21, 23, 24 and 26-31 are now allowable.

Accordingly, since rejected claims 8-11, 22 respectively depend either directly or indirectly from independent claim 1, 21, 23, 24, 26-30 or 31, these claims are also allowable. For the reasons set forth above, Applicant believes the basis for rejecting claims under 35 U.S.C. § 103(a) has been overcome and the rejections should be withdrawn.

In conclusion, Applicant respectfully asserts that claims 1, 8-11 and 21-31 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The

Atty. Docket No. 2001-0021-06
USSN 10/650,578

Examiner is requested to call the undersigned at 858-385-5298 for any reason that would advance the instant application to issue.

CONCLUSION

The Commissioner is hereby authorized to charge to the below referenced deposit account the amount of \$120 for a one month extension of time in the above captioned application. Applicants do not believe that any additional fees or charges are due in the above captioned application for its continued prosecution, however, in the event that any such fees or charges are due and owing, then the Commissioner is hereby authorized to charge any such additional fees or charges to the deposit account of the assignee of the present application, Cymer, Inc., Deposit Account No. 03-4060.

Respectfully submitted,



Matthew K. Hillman, Reg. No. 45,892

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Cymer, Inc.
Customer No. 21773
Telephone: (858) 385-5298
Facsimile: (858) 385-6025